

ABSTRACT OF THE DISCLOSURE

In a power converter, the duty cycle of a primary winding circuit causes near continuous flow of power through the primary and secondary winding circuits during normal operation. By providing no regulation during normal operation, a very efficient
5 circuit is obtained with a synchronous rectifier in the secondary operating at all times. However, during certain conditions such as start up or a short-circuit, the duty cycle of the primary may be reduced to cause freewheeling periods. To simplify the gate drive, the synchronous rectifiers may be allowed to turn off during the freewheeling periods, resulting in large ripple. A filter inductance of the secondary winding circuit reduces
10 that ripple, and is sufficient to minimize ripple during normal operation, but still allows large ripple during the freewheeling periods. By accepting large ripple during other than normal operation, a smaller filter inductance can be used.